Contents lists available at ScienceDirect

Annals of Medicine and Surgery

journal homepage: www.elsevier.com/locate/amsu



journal nomepage. www.eisevier

Short Communication



Abas Abdulkarim Farah^a, Asma Mohamed Sh Ahmed^a, Ismail Mohamed Hersi^a, Sarya Swed^{b,*}, Eman Mohammed sharif Ahmed^c, Mohammad Mehedi Hasan^d, Karam R. Motawea^e, Safaa M.A. Ahmed^f, Sheikh Shoib^g

Double burden on health services in Somalia due to COVID-19 and conflict

^a Faculty of Medicine, College of Medicine and Health Sciences, University of Hargeisa, and Indo-Gargaar Metro Cardiac Center, Hargeisa, Somalia

^b Faculty of Medicine, Aleppo University, Aleppo, Syria

^c Department of Obstetrics & Gynecology, Nile Valley University, Sudan

^d Department of Biochemistry and Molecular Biology, Faculty of Life Science, Mawlana Bhashani Science and Technology University, Tangail, Bangladesh

e Faculty of Medicine, Alexandria University, Egypt

^f Faculty of Medicine, Shendi University, Sudan

^g JLNM Hospital, Rainawari, Srinagar, Directorate of Health Services, J&K, India

1. Short communication

SEVIER

Somalia has a population of 15.4 million, suffered and continues to suffer in numerous ways. Somalia falls considerably behind its neighbors and, indeed, most conflict-torn nations throughout the world in terms of population health indices as a result of decades of political instability and a lack of functioning institutions. The [inadequate] amount of available health workers, facilities, and health service delivery methods are all detrimental effects of the conflict on the healthcare system. Although reliable and consistent health statistic indicators are difficult, if not impossible to come by, current figures suggest that the number of hospital beds per 1000 people is 0.87. Hospitals and rehabilitation facilities of all types, including general, specialist, and public facilities, are included. In addition, there are 0.023 and 0.112 physicians and nurses per 1000 people, respectively. As a result of these troubling findings and the uneven allocation of government resources, Given the aforementioned circumstances, the coronavirus pandemic was expected to have a negative impact on Somalia's population and fragile healthcare system.

After confirming the first case, the Federal Government of Somalia and the Regional States imposed a so-called lockdown and, in collaboration with the United Nations and other partners, urged communities to follow preventive measures including social distancing, frequent handwashing and suspected case self-isolation. However, because people continued to attend mosques, markets, and other social events, the restrictions were rarely executed in the community. Somalia was unprepared for the COVID-19 diagnostic standards in terms of diagnostic and case detection capabilities. There was no testing equipment for COVID-19 during the first several months of the epidemic, therefore samples were transported to Nairobi's Kenva Medical Research Institute (KEMRI). Somalia obtained three genetic testing facilities in Mogadishu. Garowe (in Puntland State), and Hargeisa with the help of WHO and other organizations (in Somaliland, the semi-autonomous self-declared republic in the north of Somalia). Despite the fact that this was a big step forward in the development of COVID-19 testing, these facilities were unable to accommodate the nationwide demand for testing. As a result, samples collected from difficult-to-reach areas still had to be transported to these three laboratories for testing, which would take an average of 3-4 days [1]. As the pandemic continued, WHO received reports of 26, 203 confirmed cases of COVID-19, including 1340 deaths from January 3, 2020, to February 15, 2022 [2]. We strongly suspect that the actual number of cases is higher than given in these reports. The reasons for this disparity, we argue, include under-testing, since many asymptomatic and mildly symptomatic individuals do not visit the healthcare facilities and under-reporting. Another significant and worrying fact is that, as of February 9, 2022, the total vaccine doses that have been administered is 1,659,803 doses only. Furthermore, Somalia faces a double burden of COVID-19 and other non-communicable and communicable diseases. The pandemic protective measures, including social distancing, had hindered the government and its partners' efforts to combat other diseases such as tuberculosis, measles, HIV, and other communicable diseases.

Given the pandemic's socioeconomic and humanitarian consequences, it had a mixed influence on the community, particularly on the economics and education sectors, as well as humanitarian relief initiatives. Two of the country's most important economic sectors, livestock trade and remittances, were severely impacted. The pandemic was

* Corresponding author., *E-mail addresses:* saryaswed1@gmail.com (S. Swed), safam0060@gmail.com (S.M.A. Ahmed).

https://doi.org/10.1016/j.amsu.2022.103968

Received 16 May 2022; Received in revised form 3 June 2022; Accepted 5 June 2022 Available online 7 June 2022

^{2049-0801/© 2022} The Authors. Published by Elsevier Ltd on behalf of IJS Publishing Group Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

predicted to cut expected economic growth from 3.2% to negative 2.5% in 2020, i.e., strongly influenced livestock trading and remittances, while inflation surged due to rising prices across the country [3]. However, in the following year of 2021, these statistics turned out more optimistic and expected a moderate recovery of the economy from the initial shock [3].Nevertheless, the private sector, both large and small-scale businesses experienced a more significant impact; about 45% temporarily suspended operations during the pandemics and demands for services and goods decreased to 65%, and almost two-thirds of firms observed drops in the supply of inputs [4]. The education sector also suffered tremendously. After the lockdown, more than 1 million Somali children were stopped from attending school and ended up without access to education. This created considerable stress for both parents and children as most of them found it hard to switch to home-schooling. A study conducted on the impact of COVID-19 on women and children by "Save the Children" showed that 77% of the children lacked educational materials that would support them during home-based learning [5]. Somalia has been repeatedly affected by drought and famine throughout its recent history regarding the humanitarian sector. Many people depend on international organizations such as the United ' 'Nations' World Food Program (WFP). Due to the combined effects of lengthy droughts, flooding, locust infestations, the economic consequences of COVID-19, and violence, 5.6 million people in Somalia are today food insecure, and 2.8 million people are unable to satisfy their daily food requirements [6].

Civil unrest and terrorist organizations within Somalia, such as Al-Shabab, pose a persistent danger to and attack members of COVID-19 pandemic awareness groups, in addition to the aforementioned sufferings. This serious incident aggravated and complicated an already worsening situation. Finally, the epidemic has had a significant impact on the Somali community in the nation. While the indicators of mortality and morbidity are limited and inaccurate, the socio-economic effects of the pandemic maybe even more damaging to the population than the disease itself. Therefore, to mitigate the dire consequences of this pandemic and to prepare for any impending crises, we recommend the following:

- A. Federal and Regional States Ministries of Health, as well as other involved governmental entities, International Organizations, and Local NGOs, must devise a holistic and comprehensive plan to coordinate their social welfare humanitarian aid programmes to address all of the community's needs, including the pandemic and its consequences, in an apprehensive manner.
- B. Isolation centres that have adequate beds and medical equipment should be built, and frontline medical personnel and paramedics should be given seminars and training on the most recent guidelines for infection prevention and control procedures. Only then can we effectively deal with and treat COVID-19 cases [7–9].

Despite the fact that COVID-19 is caused by a virus that has never been seen before, the fundamental ideas of infection prevention and control, such as hand washing, mask wearing, contact tracing, and quarantine, are still relevant. The government and its partners should promote these practises via different media venues [8].

- C. Encourage and promote a culture of clinical research and wisdom generation among Somalia's frontline healthcare providers. This will encourage knowledge exchange and make emergency situations, such as epidemics, more manageable.
- D. The authorities in Somalia, including the Federal Ministry of Health and the Regional States' Ministries of Health, should work to build an

effective communication bridge with the community and listen to and consider their specific concerns in order to tailor their strategies to the community's needs.

2. Conclusion

The bad situation in Somalia needs urgent steps to avoid serious humanitarian problems, especially what are related to COVID19 and the current conflict.

Ethics approval and consent to participate

N/A.

Funding

N/A.

Author contributions

All authors have participated in writing and reviewing the manuscript.

All authors have approved the final draft of the manuscript.

Registration of research studies

Not applicable.

Guarantor

Sarya Swed.

Consent

N/A.

Consent for publication

N/A.

Availability of data and materials

All data generated or analyzed are included in this article.

Declaration of competing interest

All authors declared no competing in interesting.

Acknowledgements

N/A.

References

- [1] J. Alawa, S. Al-Ali, L. Walz, et al., Knowledge and perceptions of COVID-19, prevalence of pre-existing conditions and access to essential resources in Somali IDP camps: a cross-sectional study, BMJ Open 11 (6) (2021), e044411.
- [2] WHO, Somalia: WHO coronavirus disease (COVID-19) dashboard with vaccination data [online] covid19.who.int. Available at: https://covid19.who.int/region/ emro/country/so, 2022. (Accessed 15 February 2022).
- [3] M. Samantar, The Economic Impact of Coivid-19 on Somalia, 2020.

A.A. Farah et al.

- [4] Blogsworldbankorg, Coronavirus and Fragility: the Impact of COVID-19 on Somalia's Private Sector [online] Available at: https://blogs.worldbank.org/africaca n/coronavirus-and-fragility-impact-covid-19-somalias-private-sector.
- [5] W.E.S. Donkor, J. Mbai, F. Sesay, et al., Risk factors of stunting and wasting in Somali pre-school age children: results from the 2019 Somalia micronutrient survey, BMC Publ. Health 22 (1) (2022) 264.
- [6] International Federation of Red Cross, Somalia: Hunger Crisis 2021, IFRC, 2021. www.ifrc.org. Available at: https://www.ifrc.org/emergency/somalia-hunger-cr isis-2021.
- [7] C. Sohrabi, Z. Alsafi, N. O'Neill, M. Khan, A. Kerwan, A. Al-Jabir, C. Iosifidis, R. Agha, World health organization declares global emergency: a review of the 2019 novel coronavirus (COVID-19), Int. J. Surg. (2020), https://doi.org/10.1016/j. ijsu.2020.02.034. PMID: 32112977.
- [8] M. Nicola, Z. Alsafi, C. Sohrabi, A. Kerwan, A. Al-Jabir, C. Iosifidis, M. Agha, R. Agha, The socio-economic implications of the coronavirus pandemic (COVID-19): a review, Int. J. Surg. 78 (2020 Jun) 185–193. PMID: 32305533.
- [9] M. Nicola, N. O'Neill, C. Sohrabi, M. Khan, M. Agha, R. Agha, Evidence based management guideline for the COVID-19 pandemic - review article, Int. J. Surg. 77 (2020 May) 206–216. PMID: 32289472.